

This listing of claims will replace all prior versions, and listings, of claims in the application:

Please cancel claims 5 and 17.

Listing of claims

1. (Currently Amended) A gas distribution cathode for plasma enhanced deposition of semiconductor materials onto one or more webs of substrate material comprising:

(a) a cathode body having two opposed planar surfaces and at least one peripheral edge;

(b) a process gas distribution system integrated within said cathode body and including process gas outlets which are ~~evenly dispersed on planar surfaces~~ evenly positioned across both of said two opposed planar surfaces of said cathode body; and

(c) one or more gas dispersion plates covering said gas outlets so as to prevent direct, line-of-sight travel of ~~process~~ process gas from said gas outlets to a substrate upon which semiconductor material is to be deposited.

2. (Original) The gas distribution cathode of claim 1, wherein said process gas distribution system includes at least one primary process gas distribution manifold.

3. (Original) The gas distribution cathode of claim 2, wherein said process gas distribution system includes one or more secondary process gas distribution manifolds connected to said primary process gas distribution manifold.

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4. (Original) The gas distribution cathode of claim 3, wherein said gas outlets are connected to said secondary process gas distribution manifolds.

5. (Canceled)

6. (Original) The gas distribution cathode of claim 5, wherein said gas outlets are evenly positioned from 1 to 4 inches apart.

7. (Original) The gas distribution cathode of claim 6, wherein said gas outlets are evenly positioned from 2 to 3 inches apart.

8. (Original) The gas distribution cathode of claim 1, further including a spent gas evacuation system.

9. (Currently Amended) The gas distribution cathode of claim 8, wherein said spent gas evacuation system includes spent gas inlets evenly positioned exclusively along said at least one peripheral edge of said cathode body.

10. (Original) The gas distribution cathode of claim 9, wherein said spent gas inlets are connected to a spent gas collection/removal manifold system.

11. (Currently Amended) The gas distribution cathode of claim 1, wherein said cathode body, said process gas outlets and said gas dispersion plates are formed from a metal or metallic alloy which is nonreactive with said process gases.

12. (Original) The gas distribution cathode of claim 11, wherein said cathode body, said process gas outlets and said gas dispersion plates are formed from stainless steel.

13. (Currently Amended) An apparatus ~~A deposition chamber~~ for the plasma enhanced deposition of semiconductor materials onto one or more webs of substrate material, said chamber including: a gas distribution cathode comprising:

- (a) a cathode body having two opposed planar surfaces and at least one peripheral edge;
- (b) a process gas distribution system integrated within said cathode body and including process gas outlets which are ~~evenly dispersed on planar surfaces~~ evenly positioned across both of said two opposed planar surfaces of said cathode body; and
- (c) one or more gas dispersion plates covering said gas outlets so as to prevent direct, line-of-sight travel of process ~~process~~ gas from said gas outlets to a substrate upon which semiconductor material is to be deposited.

14. (Currently Amended) The apparatus ~~deposition chamber~~ of claim 13, wherein said process gas distribution system includes at least one primary process gas distribution manifold.

15. (Currently Amended) The apparatus ~~deposition chamber~~ of claim 14, wherein said process gas distribution system includes one or more secondary process gas distribution manifolds connected to said primary process gas distribution manifold.

16. (Currently Amended) The apparatus ~~deposition chamber~~ of claim 15, wherein said gas outlets are connected to said secondary process gas distribution manifolds.

17. (Canceled)

18. (Currently Amended) The apparatus ~~deposition chamber~~ of claim 17, wherein said gas outlets are evenly positioned from 1 to 4 inches apart.

19. (Currently Amended) The apparatus ~~deposition chamber~~ of claim 18, wherein said gas outlets are evenly positioned from 2 to 3 inches apart.

20. (Currently Amended) The apparatus ~~deposition chamber~~ of claim 13, wherein said cathode further including a spent gas evacuation system.

21. (Currently Amended) The apparatus ~~deposition chamber~~ of claim 20, wherein said spent gas evacuation system includes spent gas inlets evenly positioned exclusively along said at least one peripheral edge of said cathode body.

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22. (Currently Amended) The apparatus ~~deposition chamber~~ of claim 9, wherein said spent gas inlets are connected to a spent gas collection/removal manifold system.

23. (Currently Amended) The apparatus ~~deposition chamber~~ of claim 13, wherein said cathode body, said process gas outlets and said gas dispersion plates are formed from a metal or metallic alloy which is nonreactive with said process gases.

24. (Currently Amended) The apparatus ~~deposition chamber~~ of claim 23, wherein said cathode body, said process gas outlets and said gas dispersion plates are formed from stainless steel.